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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,863	04/12/2004	Andreas Hamburger	321.43756X00	1849
20457 7590 09/28/2010 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873				
EXAMINER PELHAM, JOSEPH MOORE				
ART UNIT		PAPER NUMBER		
3742				
MAIL DATE		DELIVERY MODE		
09/28/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/821,863

**Applicant(s)**

HAMBURGER ET AL.

**Examiner**

Joseph M. Pelham

**Art Unit**

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 6/21/10, 9/20/10.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4, 8, 10-13, 42 and 46-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 46-50 is/are allowed.
- 6) ☒ Claim(s) 4, 8 and 10-13 is/are rejected.
- 7) ☒ Claim(s) 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

The amendment filed 6/21/10 and RCE filed 9/20/10 are acknowledged. Claims 4, 8, 10-13, 42, and 46-50 are now pending.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4, 8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. 4990748.

Referring to Figs. 1, 2 & 4, and col. 4, lines 29-68, US'748 discloses a device having an insulating frame 11 comprising parallel, spaced longitudinal struts 13 and longitudinally spaced crossbars 16 linking the longitudinal struts, and at least one contact plate 22, 26 held in grooves in the frame (the 'grooves' between elements 19 and 28) and projecting beyond the end of the frame, wherein the struts and spaced crossbars surround recesses 29 for receiving PTC elements, and at the longitudinal end portion of the frame 11, the contact plate is completely and tightly surrounded by the frame (by clip 18). Insulating parts 32 fit exactly into the spaces formed by the longitudinal struts 13 and crossbars 16 "on a side of the contact plate remote from a reception side for the PTC elements," so as to form a composite frame structure that "completely cover[s]" the "remote" side of the PTC elements (claim 12).

Noting especially Fig. 1 and col. 4, lines 50-53, and the desirability of avoiding the movement of a contact plate, requires a clip 18 that snugly holds the contact plate, and any "tolerance" greater than the size of the plate itself would be negligible. It is certainly possible, and frequently the case in manufactured or kit-type assemblies of diverse kinds, that an opening will be virtually the same size as the object inserted into it, affording a very snug friction fit, particularly where permanent and secure placement is desired.

The Examiner reiterates that the method of assembling the contact plate and the frame by molding is not germane to the patentability of the combination since the final product is still the product itself (i.e., product by process is still a product).

***Claim Rejections - 35 USC § 103***

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over US'748 in view of US Pat. 6373705.

US'748 discloses an electrically insulating frame 11 and an electrically insulating/thermally conductive cover on the side of the contact plate opposite the side receiving the PTC elements. Crossbars 16 are "inwardly directed studs for the positive

retention of the PTC elements" since they are directed "inwardly" from struts 13, and they "positively retain" the PTC elements when the device is assembled.

The claims differ substantively from US'748 only in calling for the frame and insulating cover to be a polymer ceramic.

US'705 discloses, at col. 4, lines 37-46, a polymer ceramic insulating member 2 used to transfer heat away from a heated component. It would have been obvious to utilize the polymer ceramic for the frame and insulating cover of US'748 since US'705 discloses such to have properties which are clearly desirable in such PTC heater applications, where electrical contacts must be insulated while heat is efficiently transferred away from the PTC element.

While US'705 does not explicitly disclose bulges to secure the frame in a profile tube, since the acknowledged prior art already discloses that the frame and heater assembly must be inserted in a profile tube, the use of bulges to secure the frame in place does not patentably distinguish the claimed invention from the prior art. It would have been obvious to form bulges to secure the frame in the profile tube since one conventionally secures such an arrangement either by friction or glue; friction requires some part of the inserted frame to extend into contact with the tube, i.e., a "bulge."

#### ***Allowable Subject Matter***

Claims 46-50 are allowed.

Claim 42 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are not persuasive.

At page 11 of the Response, with reference to US'748, Applicant asserts that US'748 does *not* disclose that the contact plate cannot be drawn out of the frame without damaging the frame, as recited in the rejected independent claims; and, moreover, that the contact plate of US'748 "definitely can be drawn out of the frame without damaging the frame."

Applicant has not addressed the Examiner's discussion of specifically this issue in the previous Office action. Reiterating its salient statement of fact, the rivet that secures the contact plate of US'748 to the frame of US'748 is a permanent fastener (see el't 24 in Figs. 1 & 2, and col. 4, lines 45-47): its removal would clearly damage the frame, and removal is required for the removal of the contact plate.

Also at page 11 of the Response, referring to the 35 USC 103 rejection, Applicant asserts that the Examiner cited US'705 as allegedly disclosing "cross-bars

that are inwardly directed studs and... a polymer ceramic insulating member." The Examiner made no such allegation about "cross-bars that are... studs," but cited US'705 solely for its disclosure of a polymer ceramic insulating member.

Regarding Applicant's further observation, at page 12, that "the present invention shows a process that is not only different, but opposite to that described in" US'705, the claims recite an apparatus.

As discussed in the previous Office action, product by process claims are still product claims, and their patentability depends on the novelty or non-obviousness of the recited structure.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph M. Pelham whose telephone number is 571-272-4786. The examiner can normally be reached on M-F 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph M. Pelham/  
Primary Examiner, Art Unit 3742  
9/25/10